

**EXPRESS MAIL NO. EV301025143US**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Robert R. HAYES	) Re: Information Disclosure
	) Statement
Serial No.: Not yet assigned	)
	) Group: Not yet assigned
	)
Filed: Concurrently herewith	) Examiner: Not yet assigned
	)
For: "METHOD AND APPARATUS FOR	) Our Ref: B-4480NP 621323-7
GENERATING TWO FREQUENCIES	)
HAVING A FREQUENCY SEPARATION	) Date: November 14, 2003
EQUAL TO THE ATOMIC FREQUENCY	
OF AN ATOMIC SPECIES"	

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the Applicants' duty to disclose information which may be material to the examination of this application, the undersigned respectfully requests that the Examiner consider on the merits the documents listed on the enclosed Form PTO-1449 (modified) before issuing the first Office Action on the merits.

Copies of the foreign patent documents and the non-patent publications listed on the enclosed Form PTO-1449 (modified) are enclosed herewith for the Examiner's convenience. Copies of the U.S. patent documents listed on the enclosed Form PTO-1449 (modified) are not enclosed, pursuant to Deputy Commissioner Stephen G. Kunin's Pre OG Notice dated July 11, 2003.

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made (37 C.F.R. 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

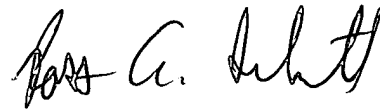
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The filing of this Information Disclosure Statement shall not be construed as an admission against interest in any manner. (Notice of January 9, 1992, 1135 O.G. 13-25, at 25.)

The person making this statement is the practitioner who signs below on the basis of information supplied by an individual associated with the filing and prosecution of this application (37 C.F.R. § 1.56(c)) and on the basis of information in the practitioner's file.

If any fees are due, please charge our Deposit Account No. 12-0415 or credit any overpayment to our Account No. 12-0415. No fees should be due because this Information Disclosure Statement is being filed concurrently with the above-identified U.S. patent application.

Respectfully submitted,



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Enclosures: Form PTO-1449 (modified) (1 page)  
Copies of documents listed in Form PTO-1449 (modified)

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Form PTO-1449 (Modified)	ATTY DOCKET NO. B-4480NP 621323-7	U.S. SERIAL NO. not yet assigned
LIST OF PATENTS AND PUBLICATIONS STATEMENT	APPLICANT(S) Robert R. HAYES	
	FILING DATE concurrently herewith	GROUP not yet assigned

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE or 102(e) DATE IF APPROPRIATE
	5,517,157	05/1996	English	331	94.1	
	5,657,340	08/1997	Camparo, et al.	372	69	
	6,303,928	10/2001	Buell, et al.	250	251	

**FOREIGN PATENT DOCUMENTS**

DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

Huang, X., Seeds, A.J., Roberts, J.S., and Knight, A.P., "Monolithically Integrated Quantum-Confined Stark Effect Tuned Laser with Uniform Frequency Modulation Response," IEEE Photonics Technology Letters, Vol. 10, pp. 1697-1699 (1998).	
Kitching, J., Knappe, S., Vukicevic, N., Hopllberg, L., Wynands, R., Wiedmann, W., "A Microwave Frequency based on VCSEL-Driven Dark Line Resonances in Cs Vapor," IEEE Trans. On Instruments and Measurements, Vol. 49, pp. 1313-1317 (2000).	
"Compact Atomic Clocks" INTERNET: < <a href="http://www.boulder.mist.gov/timefreq/ofm/smallclock/index.htm">http://www.boulder.mist.gov/timefreq/ofm/smallclock/index.htm</a> 28 pages	

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.